View of the Expert

Pandemic, Casedemic and Infodemic : COVID-19

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COVID-19 the disease due to novel RNA SARS CoV2 has seen a spectrum of wide clinical variance from silent ,asymptomatic disease in large majority to severe, symptomatic disease in a small minority particularly in elderly and vulnerable population[1]. Global pandemics in the last few centuries are rare but have had devastating consequences both medically and economically. Covid-19 has halted planet earth virtually making every one live in their own homes and a new world order is evolving with a so called “New Normal". India and Indians have responded optimistically with collective cohesion from all sectors. Covid-19 policies to care have seen excellent co ordination and collobaration from all stake holders including those from government to private sector. Every pandemic leads to panic, confusion and controversies and Covid-19 is no exception. Uncertainty,Unpredictability as well as fear of the unknown is not unique to covid 19 alone but every pandemic planet earth has faced[2]. As we enter in the next season of the pandemic several common threads have emerged in India. Indians have done well with a large proportion being asymptomatic and recovering well with a very low case fatality rate (below 2 %).India has a large burden of hypertension and diabetes as well as heart disease and other chronic diseases including COPD as well as kidney disorders still the case fatality rate is low 3 . India in a unique country with paradoxes . Indians has a poor “hygiene quotient” but paradoxically that lead to a better “immune quotient”. The innate immunity and dense indian population clusters in poor ventilated spaces makes Indians uniquely susceptible to SARS CoV2 exposure . Paradoxically despite of high exposure as evidenced by high antibody rates in serosurvey in dense urban slum clusters like Dharavi. Indian may be the first country in the world to develop the elusive often controversial “herd immunity “ not Sweden . The link between hygiene hypothesis to autoimmunity is well known but covid will unravel another interesting immune spectrum in the Indians as we enter in the third season of covid pandemic India after summer and monsoon. Impending winter comes with fears of respiratory illness including flu like viruses especially in extreme harsh climatic zones in Indian geography as well as dense air pollution from farm fires and vehicles. In temperate climates winter peak is expected in North America and Europe but in tropical India where covid peaked in monsoon will it flatten out in winter is an unanswered question. Winter possibly may pose problems only to those parts of India which will see extreme temperatures . ICMR and health department is gearing up to face unlocking ,festive season and winter together and the challenges faced to health care ecosystem is compelling and India will rise to the occasion. The positive direction of public policy to research as well as to treat and care has been seen across India in all states and needs to be complemented. Indian have a unique disadvantage of a large economically vulnerable population which had to battle adversities of health and livelihood both . Again paradoxically Indians have the best “adversity quotient” to battle any adversity from pandemic to cyclones as well as economic hardships. The Indian resilience and its leadership needs to be complemented for sustained struggle battling all odds. health care workers have been at the forefront and have to protect themselves with care. Indians cannot lose focus on Noncovid health care despite of the covid pandemic and it poses a huge challenge as a tsunami of non covid mini epidemics should not peak up during covidtimes. Cardio metabolic risk as well as renal, respiratory illness apart from cancer need Special attention and focus should be on these vulnerable groups. During unlocking ‘Reverse isolation ‘ of the elderly as well as vulnerable groups will be a strategy to save lives .

“Casedemic” is a new term which has evolved and has been engulfed with a lot of criticism. Often the number of cases in covid don’t tell the ground reality . Cases are a function of testing and exposure is far more than those tested . All mathematical modellors have been proven wrong by the predictably unpredictable corona virus and therefore the so called less testing to more testing debate is an interesting

science concept . Merely testing and adding numbers do they really matter when most will recover and large proportion will be asymptomatic. It is impossible to test the whole country or whole cities like they have done one some parts of China or Korea .Casedemic term becomes relevant here. The virus is transmissible when usually the cycle threshold (CT) is below 24 (by a well established molecular laboratory) and this the threshold of 40 may need a strong relook by our planners. India was the first country on planet earth to start antigen testing which clearly picks up the CT below 24 which means the infective population. The value of aggressive testing , tracing to the point we screen whole India possibly is not practical .Public health policy makers will have to evolve pragmatic practices which can be realistic and clinically meangingful for care . India may have to adopt in future a symptom based testing policy as well as strategy driven tracing policy to close the tap.The use of digital technology will be the key . Essentially if we can achieve a zero fatality covid rate which may not be possible but a low below 0.5 to 1 percent case fatality rate we can avoid the “Casedemic". A significant number of Indians in some geographies already have had asymptomatic exposures and excellent recovery.The lasting T cell immunity needs systematic research and is more relevant even when we are undergoing Vaccine trials . Mere case numbers and India being number two should not lead to either panic or fear because this is more a “Casedemic” metric not a disability or mortality metric which is the real key in the pandemic .

COVID-19 has arrrived via Internet in digitalised world so has lead to a proper “Infodemic “ full of myths, changing facts, misconceptions , rumours mediated by social media across the world[4]. In times of uncertainty we need to rely on peer reviewed scientific literature which had also local relevance. There is a huge bias in top global journals to publish what they want built as a narrative . India needs to build a strong publication network of high impact journals which impact Indians including JIMA and other indian medical journals . We need to generate India specific data for India by Indians in an evidence based matrix . Despite of resource limitations we have excellent repository of made in India compounds as well as test kits which will need validation within our own country. India has capabilities to develop best in class repurposed drugs, monoclonal antibodies/ immunologicals as well vaccines. India is the world’s capital of generic medicines with a rich heritage . Indian ancient systems of medicines should also undergo the same scientific researchrigor and validation so that they will get the recognition they deserve in an evidence based way. Indian respiratory techniques like Yoga, Pranayams as well as meditation have a role in respiratory physiotherapy both in care and rocovery of covidCare.In controlling the Covid 19 pandemic we need to contain both “Casedemic”with a fine balance of “infodemic” and generate india specific data.

References

1 Joshi SR — COVID-19 Care in India: Evolving Paradigms from Public Health to Critical Care. J Assoc Physicians India. 2020 Oct; 68(10): 56-58. PMID: 32978927.

2 Ghosh AK, Joshi S — Tools to manage medical uncertainty. Diabetes MetabSyndr. 2020 Sep-Oct;14(5):1529-1533. doi: 10.1016/j.dsx.2020.07.055. Epub 2020 Aug 8. PMID: 32947750.

3 Joshi SR, Boulton AJM — Diabetes and COVID 19 in South-East Asia.Diabetes Res ClinPract. 2020 Aug;166:108292. doi: 10.1016/j.diabres.2020.108292. Epub 2020 Jun 30. PMID: 32619523.

4 Dharmshaktu GS — ‘Infodemic’ During COVID-19 Pandemic: Troubleshooting the Trouble in Troubled Time Through Primary Care Activism. Int J Prev Med. 2020 Jul 9;11:94. doi: 10.4103/ijpvm.IJPVM_215_20. PMID: 33042491; PMCID: PMC7518340.